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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/788,211

02/16/2001

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09/08/2004

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EXAMINER

PHU, PHUONG M

ART UNIT

PAPER NUMBER

2631

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/788,211	JOSEFSSON ET AL.	
	Examiner	Art Unit	
	Phuong Phu	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 10-24 and 35-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 25-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 February 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/25/01, 7/6/04 & 8/29/01</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to the Election filed on 7/13/04. Accordingly, claims 1-9 and 25-34 have been selected.

Information Disclosure Statement

2. The applicant is hereby notified that the reference "09/784,827" listed in the IDS filed on 7/25/01 is not initialed by the examiner because it has not yet been published, and therefore not considered as a prior art.

Drawings

3. The drawings are objected to because in figure 2, blocks 60a and 60b must be labeled with their respective functional claims. It is hereby suggested that they should be labeled with "Echo Cancellor".

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified

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and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 2, 3 and 25-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Salinger (6,304,594).

As per claims 1 and 2, see figure 2, and col. 5, line 32 to col. 7, line 17, Salinger discloses a system comprising:

a transmitter circuit (16);

a receiver circuit (18);

a transmission medium (30), which inherently has a transfer function, for transmitting a transmission signal between said transmitter and receiver circuits; and

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a calibration circuit (76, 58, 60, 62) having elements (60, 62) responsive to an altered reference signal (outputted from element (76) of said transmitter circuit altered by the transmission medium for adjusting reference signal levels of said transmitter and receiver circuits to compensate for variations in the transmission signal due to said transfer function.

As per claims 25 and 28, Salinger discloses that the system includes a control circuit (60, 58, 62, 76) to synchronize the adjustment of the references signal levels (see col. 6, lines 44-59 and col. 7, lines 5-17).

As per claims 26 and 29, in Salinger, a clock circuit is inherently included for providing clock(s) for an analog to digital conversion performed in element (76).

As per claims 27 and 30, Salinger discloses that the control circuit includes a control channel (see (58) of figure 2).

As per claim 3, Salinger discloses that the transmission medium is a transmission line (see col. 1, lines 55-60), which can be considered as an capacitive isolation device since its equivalent circuit can be realized as a circuit comprising capacitor(s)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4-9 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salinger in view of Desroisiers et al (6,434,199).

As per claim 4, Salinger does not disclose that said transmitter circuit and said receiver circuit includes a D/A circuit and a A/D circuit as claimed.

However, Salinger discloses that said transmitter circuit includes a symbol encoder (22) and a receiver circuit includes a symbol decoder (44) and he does not disclose how these encoder and decoder are implemented.

Desroisiers et al discloses a symbol encoder comprising a D/A (34, 36) for converting input bit stream (D1,..., D5) into analog signals for symbol-encoding (see figure 3, and col. 2, lines 17-32).

Therefore, as an application, it would have been obvious for one skilled in the art within his skills, when building Salinger system, to implement the symbol encoder (22) as an symbol encoder, as taught by Desroisiers et al, comprising a D/A for converting input bit stream (outputted from element (20) (see figure 2)) into analog signals for the required symbol-encoding in the transmitter circuit for transmission over the transmission medium, and to implement the symbol decoder (44), in a reverse symbol decoding, comprising a A/D for converting the received symbol stream (42), received from the transmission medium, into the output stream (46).

As per claim 5, Salinger, in view of Desroisiers et al, discloses that said D/A circuit receives the input bit stream (outputted from element (20) (see Salinger , figure 2) as its input signal, and he discloses a modulator (24) (see Salinger , figure 2) outputting an analog signal for transmission over the transmission medium, in response to the output of the D/A.

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As per claim 6, Salinger, in view of Desroisiers et al, discloses an encoder (32) (see Desroisiers et al, figure 3), providing a digital signal, and a D/A (34, 36) responsive to said digital signal to provide an analog output.

Claim 7 is rejected with similar reasons set forth for claim 2.

As per claim 8, in Salinger system, in view of Desroisiers et al, said A/D is inherently responsive to the analog signal received from the transmission medium to provide a digital signal (46) (see Salinger, figure 2), and a decoder circuit is inherently included to provide said digital output signal.

As per claim 9, Salinger, in view of Desroisiers et al, discloses a demodulator circuit (36) (see Salinger, figure 2) responsive to said analog input received from the transmission medium to provide an analog signal and an A/D (inherently included in element (44) (see Salinger, figure 2)) responsive to said analog signal to provide said digital output signal (46).

As per claims 31 and 32, in Salinger system, in view of Desroisiers et al, the analog output signal for transmission over the transmission medium and the input analog signal received from transmission over the transmission medium are inherently signals.

As per claim 33, Salinger discloses a reference signal capture circuit (62) (see figure 2) for capturing an altered reference signal and providing said altered reference signal to said receiver circuit, wherein said altered reference signal compensates for variation in the transmission over the transmission medium.

As per claim 34, Salinger does not disclose an averaging circuit connected to said reference signal capture circuit and providing an averaged altered reference signal to said receiver circuit.

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However, teaching of averaging an altered signal into an average signal, as a better representation for said altered signal is well-known in the art, and the examiner takes Official Notice.

Therefore, it would have been obvious for one skilled in the art, when building Salinger system in view of Desroisiers et al, to implement an averaging circuit connected to said reference signal capture circuit for averaging the altered signal outputted said reference signal capture circuit into an average signal, as a better representation for said altered signal for the receiver circuit.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (8:30-6:00) First Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Phuong Phu

Phuong Phu
08/30/04.

Phuong Phu
Primary Examiner
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